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data accumulated over periods of time significantly longer than the period of the time-varying propagation channel and interference. For any given metric, there exists a theoretical relationship between the metric and received SIR DCH. When enough data has been accumulated in the remote receiver to evaluate the metric, it is computed and compared with the desired metric (representing a desired quality of service) by the processor 74 and an updated target SIR DCH is then output. The updated target SIR DCH is then used in the inner loop to determine the direction of the DCH step up/down commands sent to the transmitting station's power adjustment generating processor 55 to control the power of the transmitter 51.

Due to the sporadic and shared use nature of the HS-SICH, attempting to compute a target SIR for the HS-SICH in the conventional manner is impractical. Accordingly, FIG. 6 illustrates a preferred embodiment where the outer loop power control for the HS-SICH includes a HS-SICH target SIR derivation device 87 to which the target SIR DCH is input and from which the target SIR HS-SICH is output. The HS-SICH target SIR derivation device 27 preferably sets the relationship between target SIR on DCH and target SIR on HS-SICH either as 1:1 or any other predefined mathematical relationship, or as taken from a mapping table. The target SIR HS-SICH value generated by the device 87 is and compared via combiner 76s with SIR of the received DCH data is measured by the measuring device 72 or a derivative thereof. Alternatively, the SIR of the received HS-SICH is measured and compared with the target SIR HS-SICH. If the compared value is less than the target SIR HS-SICH, a HS-SICH "step-down" command is issued and passed by the processing circuitry 77, via the receiving station's transmitter 78 and the transmitting station's receiver 56, to the transmitter 51 via input 58s, otherwise a HS-SICH "step-up" command is issued.

Thus, as described above, reliable Outer Loop Power Control functionality on HS-SICH is achieved for radio resource usage efficiency in HSDPA for UTRA TDD. The invention thus provides a new relationship between target SIR settings on DCH and HS-SICH for particular WTRUs and all usages thereof.

The foregoing description makes references to HSDPA in UTRA TDD as an example only and not as a limitation. The invention is applicable to other systems of wireless communication including dedicated and shared channels. Other variations and modifications consistent with the invention will be recognized by those of ordinary skill in the art.

What is claimed is:

1. A first wireless transmit/receive unit (WTRU) comprising:
 - a receiver configured to receive a control signal from a base station;
 - the receiver configured to receive a transmit power command from the base station; and
 - a transmitter operatively coupled to the receiver, the transmitter configured to directly transmit a shared channel signal to a second WTRU in a first transmission time interval (TTI) based on the received control signal, wherein a transmission power level of the transmitted shared channel signal is based on the received transmit power command.
2. The first WTRU of claim 1, wherein the receiver is further configured to receive user data from the base station.
3. The first WTRU of claim 1, wherein the transmitted shared channel signal contains user data.
4. The first WTRU of claim 1, wherein the transmission power level is further based on a measured pathloss.

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5. The first WTRU of claim 4, wherein the measured pathloss is derived from a received power level of a reference signal and a transmission power level of the reference signal.

6. The first WTRU of claim 1, wherein the transmitter is further configured to directly transmit a second channel signal to the second WTRU in a second TTI, wherein a transmission power level of the transmitted second channel signal is derived from a measured pathloss and a received transmit power command.

7. The first WTRU of claim 6, wherein the second channel signal contains a second control signal.

8. A method for use in a first wireless transmit/receive unit (WTRU), the method comprising:

- receiving a control signal from a base station;
- receiving a transmit power command from the base station; and
- directly transmitting a shared channel signal to a second WTRU in a first transmission time interval (TTI) based on the received control signal, wherein a transmission power level of the transmitted shared channel signal is based on the received transmit power command.

9. The method of claim 8, further comprising: receiving user data from the base station.

10. The method of claim 8, wherein the transmitted shared channel signal contains user data.

11. The method of claim 8, wherein the transmission power level is further based on a measured pathloss.

12. The method of claim 11, wherein the measured pathloss is derived from a received power level of a reference signal and a transmission power level of the reference signal.

13. The method of claim 8, further comprising:

- directly transmitting a second channel signal to the second WTRU in a second TTI, wherein a transmission power level of the transmitted second channel signal is derived from a measured pathloss and a received transmit power command.

14. The method of claim 13, wherein the second channel signal contains a second control signal.

15. The first WTRU of claim 6, wherein the first TTI is the same TTI as the second TTI.

16. The method of claim 13, wherein the first TTI is the same TTI as the second TTI.

17. A subscriber apparatus comprising:

- a receiver configured to receive transmit power control information from a base station;
- the receiver configured to receive a control signal from the base station; and
- a transmitter operatively coupled to the receiver, the transmitter configured to directly transmit a shared channel signal to a second subscriber apparatus in a first transmission time interval (TTI) based on the received control signal, wherein a transmission power level of the transmitted shared channel signal is based on the received transmit power control information.

18. The subscriber apparatus of claim 17, wherein the transmission power level is further based on a measured pathloss.

19. The subscriber apparatus of claim 18, wherein the measured pathloss is derived from a received power level of a reference signal and a transmission power level of the reference signal.

20. The subscriber apparatus of claim 17, wherein the transmitter is further configured to directly transmit a second channel signal to the second subscriber apparatus in a second TTI, wherein a transmission power level of the